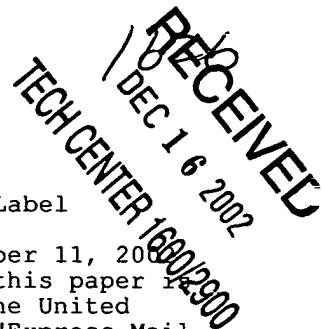




12-12-02



Attorney Docket No. 970113R/HG

**IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE**

First named  
Applicant : KIMURA  
  
Serial No. : 09/678,218  
  
Filed : September 29, 2000  
  
Art Unit : 1626  
  
Examiner : L. Stockton

**STATUS INQUIRY  
AND  
REQUEST BY APPLICANT FOR INTERFERENCE  
WITH PATENT, 37 CFR 1.607**

"Express Mail Mailing Label  
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*Francine E. Smith*  
Francine E. Smith

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Commissioner for Patents

S I R :

The Office communication dated June 11, 2002 suspended  
ex parte prosecution for a period of six months and stated "upon  
expiration of the period of suspension, applicants should make an  
inquiry as to the status of the application." It is requested  
that applicants Kimura et al (collectively "Applicant" or  
"Kimura") be informed of the status of this application.

\* \* \* \* \*

The Interview Summary attached as part of the Office  
communication dated June 11, 2002, states "The Examiner called

Applicants' representative to request that a statement made under 37 C.F.R. 1.607 be filed." The paper hereinafter under 37 CFR 1.607 is in response to the Examiner's request.

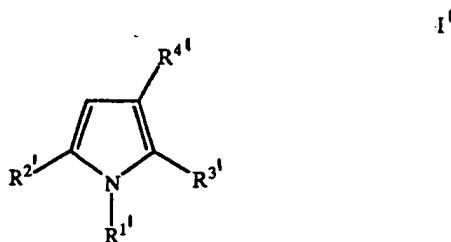
**REQUEST UNDER 37 CFR 1.607**

1.607(a) Applicant seeks to have an interference declared between the above-identified reissue application SN 09/678,218 and

1.607(a)(1) the Khanna et al (collectively "Khanna")  
USP 5,935,990.

1.607(a)(2) Proposed Count

A compound of Formula I'



wherein R<sup>1'</sup> and R<sup>2'</sup> are independently selected from aryl, cycloalkyl, cycloalkenyl and heterocyclyl, wherein R<sup>1'</sup> and R<sup>2'</sup> are optionally substituted at a substitutable position with one or more radicals independently selected from alkylsulfonyl, aminosulfonyl, haloalkylsulfonyl, halo, alkylthio, alkylsulfinyl, alkyl, cyano, carboxyl, alkoxycarbonyl, haloalkyl, hydroxyl, alkoxy, hydroxyalkyl, alkoxyalkyl, alkylcarbonyl, haloalkoxy,

amino, alkylamino, arylamino and nitro;

wherein R<sup>3'</sup> is a radical selected from hydrido, halo, methyl and alkoxy carbonylalkyl; and

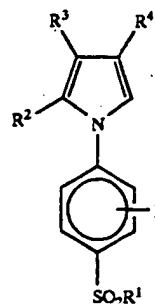
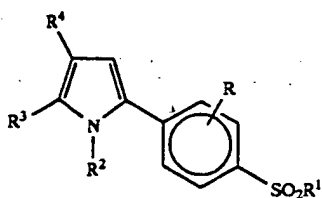
wherein R<sup>4'</sup> is a radical selected from hydrido, halo, alkyl, haloalkyl, cyano, alkoxy carbonyl, carboxyl, formyl, aryl, heteroaryl, alkylsulfonyl, haloalkylsulfonyl, hydroxyalkyl, alkoxyalkyl, alkyl carbonyl, carboxyalkyl, alkoxy carbonylalkyl, alkyl carbonyloxyalkyl, mercaptoalkyl, alkylthioalkyl, haloalkyl carbonyl, haloalkyl(hydroxy)alkyl, aminoalkyl, alkylaminoalkyl and alkoxy;

provided at least one of R<sup>1'</sup> and R<sup>2'</sup> is phenyl substituted with methylsulfonyl or aminosulfonyl; and further provided R<sup>3'</sup> is hydrido when R<sup>1'</sup> is phenyl substituted with aminosulfonyl or methylsulfonyl;

or a pharmaceutically-acceptable salt thereof;

or

a compound of formula (I) or (II):



wherein:

R represents a hydrogen atom;

- R<sup>1</sup> represents a methyl group or an amino group;
- R<sup>2</sup> represents an unsubstituted phenyl group or a phenyl group which is substituted by at least one substituent selected from the group consisting of a halogen atom; an alkoxy group having from 1 to 4 carbon atoms; an alkylthio group having from 1 to 4 carbon atoms; an unsubstituted alkyl group having from 1 to 4 carbon atoms; an alkyl group having from 1 to 4 carbon atoms which is substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms; a haloalkoxy group having from 1 to 4 carbon atoms; and an alkylenedioxy group having from 1 to 4 carbon atoms;
- R<sup>3</sup> represents a hydrogen atom, a halogen atom, an unsubstituted alkyl group having from 1 to 4 carbon atoms or a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms;

R<sup>4</sup> represents

a hydrogen atom;

an unsubstituted alkyl group having from 1 to 4 carbon atoms;

a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms;

a cycloalkyl group having from 3 to 6 carbon atoms;

an aryl group which has from 6 to 10 ring carbon atoms and which is unsubstituted or is substituted by at least one substituent selected from the group consisting of a halogen atom; an alkoxy group having from 1 to 4 carbon atoms; an alkylthio group having 1 to 4 carbon atoms; an unsubstituted alkyl group having from 1 to 4 carbon atoms; an alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having 1 to 4 carbon atoms and an alkylthio group having 1 to 4 carbon atoms; and a cycloalkoxy group having

3 to 7 carbon atoms; and an aralkyl group having from 1 to 4 carbon atoms in the alkyl part and containing at least one said aryl group.

The portion of the proposed count before the word "**or**" is hereinafter referred to as the Khanna portion of the count. The portion of the proposed count following the word "**or**" is hereinafter referred to as the Kimura portion of the count.

1.607(a)(3) Claim 1 of the Khanna USP 5,935,990 corresponds exactly to the Khanna portion of the proposed count. The Khanna portion of the proposed count is a copy of claim 1 of the Khanna USP 5,935,990 except that the USP 5,935,990 claim 1, line 1 "Formula I" is now identified as --Formula I'--; the structural formula identification is changed from "I" to --I'-- and the claim 1 R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> groups are now identified as R<sup>1'</sup>, R<sup>2'</sup>, R<sup>3'</sup>, and R<sup>4'</sup>. It is respectfully submitted that other Khanna USP 5,935,990 claims including other compound claims (e.g., claims 2, 3, 4, 6, 7 and 8), which are somewhat more limited than claim 1, also correspond substantially to the count. Other Khanna USP 5,935,990 claims which are directed to pharmaceutical compositions (e.g., claim 10) and claims which are directed to methods of treating a specified disorder (e.g., claim 19) also correspond substantially to the count in view of the extensive

prior art showing the same use (pharmaceutical composition and method of treating the specified disorder) for related compounds.

1.607(a)(4) Kimura reissue application claim 13 as presently amended is identical to the Kimura portion of the count. Other Kimura reissue application claims, for example, claims 14 and 15 which are somewhat more limited than claim 13 correspond substantially to the Kimura portion of the count. Method of treatment claims 28 and 29 which define the compounds substantially the same as in claims 13 and 14, respectively, are considered to correspond substantially to the count. Similarly claim 40 which defines the compounds substantially as in claim 13, is considered to correspond to the count. Certain of the pending Kimura reissue application claims which have not been identified in this paragraph, it is respectfully submitted, do not correspond to the count.

**DISCUSSION OF THE RELATIONSHIP OF THE KHANNA CLAIM 1  
TO THE KIMURA CLAIM 13 AND THE "TWO-WAY" TEST**

Khanna claim 1 is broader than the Kimura reissue claims 13, 14 and 15 and includes a substantial part of the subject matter of said Kimura claims within its scope.

There is a large overlap in claimed subject matter between the Khanna USP 5,935,990 claim 1 and the Kimura reissue application claims 13, 14 and 15. This is apparent when analyzing the Khanna patent claim 1, starting with the proviso

(at the end of claim 1) which requires that at least one of R<sup>1</sup> and R<sup>2</sup> is phenyl substituted with methylsulfonyl or aminosulfonyl which provides two possible structural formulas which correspond broadly to the Kimura Formula I and Formula II. The Khanna USP 5,935,990, claim 6 depicts a structural formula which is substantially the same as the Kimura Formula I; and the Khanna claim 8 depicts a structural formula which is substantially the same as the Kimura Formula II. The Khanna patent claim 1 proviso which continues with the requirement that R<sup>3</sup> is hydrido (hydrogen) when R<sup>1</sup> is phenyl substituted with aminosulfonyl or methylsulfonyl, means that when a Khanna compound has the formula depicted in Khanna claim 8, R<sup>3</sup> is hydrido (hydrogen). (In Khanna claims 1, 6 and 8, R<sup>3</sup> is at the 5-position of the pyridyl ring.) The Kimura structural Formula II similarly requires hydrogen at the 5-position on the pyridyl ring. The Khanna claim 1 group R<sup>3</sup> specifies four substituents, three of which (hydride, halo and methyl) are included within the R<sup>3</sup> group of the Kimura claims. The Khanna group R<sup>4</sup> and the Kimura group R<sup>4</sup> are both broad definitions which include a large measure of overlapping subject matter.

It is respectfully submitted that if the Khanna USP 5,935,990 claim 1, 2, 3, 6 and 8 were prior art against the Kimura reissue application claims 13, 14 or 15, the Kimura application claims 13, 14 and 15 would be anticipated. Similarly, if the Kimura reissue application claims 13, 14 or 15



were prior art against the Khanna USP 5,935,990 claims 1, 2, 3, 6 and 8, the Khanna claims 1, 2, 3, 6 and 8 would be anticipated. The foregoing satisfies the "two-way" test for determining interfering subject matter.

1.607(a)(5) Not applicable because no Kimura reissue application claim which is identified as corresponding to the count is being added at this time. (See also the following explanation concerning 1.607(a)(6).)

1.607(a)(6) specifies that an explanation as to how the requirements 35 USC 135(b) are met, "...if the claim presented or identified under paragraph (a)(4) of this section was not present in the application until more than one year after the issue date of the patent."

The subject matter of the Kimura reissue application claims identified in paragraph (a)(4), i.e. reissue claims 13, 14, 15, 28, 29 and 40, was claimed in the Kimura USP 5,908,858 prior to the issuance of the Khanna USP 5,935,990 on August 10, 1999 and continuously claimed by Kimura to date. The filing of the present Kimura reissue application SN 09/678,218 (for reissue of Kimura USP 5,908,858) on September 29, 2000, does not change the fact that Kimura was claiming the subject matter of the claims identified in paragraph (a)(4) from a date preceding the Khanna USP 5,935,990 issue date of August 10, 1999, to date. See

Stalego et al v. Heymes et al, 120 USPQ 473 (CCPA 1959) wherein it was held that notwithstanding the filing of the Heymes et al reissue application in the interference more than one year after the issue date of the Stalego et al patent, 35 USC 135(b) did not act as a bar to the patentability of Heymes' reissue application claims. The court stated

"We agree with the examiner and the board that claim 1 of Heymes et al., which was continuously asserted by them, beginning at a time prior to the issuance of the Stalego et al. patent, is drawn to substantially the same subject matter as the counts of the interference, within the meaning of 35 U.S.C. 135." (Stalego v. Heyemes, p. 478)

The criteria to determine whether a new or amended application claim is "...drawn to substantially the same subject matter..." was recently restated by the Federal Circuit as follows:

"The analysis focuses on the copied claim to determine whether all material limitations of the copied claim necessarily occur in the prior claims. Id. If all material limitations of the copied claim are present in, or necessarily result from, the limitations of the

prior claims, then the copied claim is entitled to the earlier effective filing date of those prior claims for purposes of satisfying 35 U.S.C. § 135(b). See Corbett, 568 F.2d at 765-66, 196 USPQ at 342; In re Schutte, 244 F.2d 323, 326, 113 USPQ 537, 540 (CCPA 1957)." In re Berger, 61 USPQ 2d 1523, 1527 (Fed. Cir. 2002).

Applying the comparison standard of Corbett (Corbett v. Chisholm, 196 USPQ 337, 343 (CCPA 1977)) establishes that the Kimura reissue application claims identified in paragraph (a)(4) do not include any material limitations which are not present in the allowed claims of the application which issued as the Kimura USP 5,908,858. This is apparent from a comparison of the Kimura reissue application claims 13, 14, 15, 28, 29 and 40, as set forth in the Amendment Under 37 CFR 1.116 dated February 27, 2002, copies of which comprise the Attachment hereto.

In accordance with the amendment procedure specified in 35 CFR 1.173(d) all changes in a reissue amended claim relative to the patent claim are set forth by enclosing the subject matter deleted from said patent claim in brackets and underlining subject matter added in the reissue amended claim.

Reissue application claim 13 was amended into independent form by adding the preamble of claim 1. Reissue application

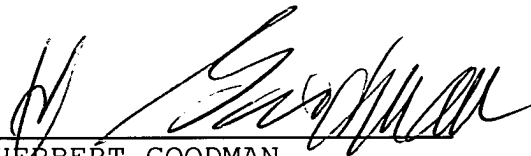
claim 13 was also amended to correct two errors, namely in the definition of R<sup>2</sup>, "haloalkyl" was corrected to "haloalkoxy" (this correction is supported by the correct identification of this substituent group in the Kimura patent and reissue application claims 1, 7, 14, 15, 28, 29 and 40); and in the definition of R<sup>4</sup>, "a hydroxy group" is added as one of the named substituents in a substituent group (this correction is supported by the correct inclusion of the same hydroxy group in the Kimura USP 5,908,858 and reissue application claims 1, 11, 12, 14, 15, 28, 29 and 40). Reissue application claims 13, 14 and 15 were also amended (from the corresponding patent claims) by deleting a small amount of subject matter (i.e., a few substituent groups) and narrowing certain carbon ranges so that these claims are fully supported by the Kimura priority application JP 8-083562.

Reissue application claims 28 and 40 were rewritten into independent form by inserting the preamble. In each of claims 28, 29 and 40, the definition of the compounds was amended (from the corresponding patent claims) by deleting a few substituent groups and narrowing certain carbon ranges as in claims 13 and 14. None of reissue application claims 13, 14, 15, 28, 29 and 40 contain any material limitation which is not contained in the Kimura USP 5,908,858 claims.

It is respectfully submitted that the Kimura reissue application claims 13, 14, 15, 28, 29 and 40 meet the comparison

standard of Corbett and are entitled to a date of at least as early as the Kimura USP 5,908,858 issue date which precedes the issue date of the Khanna USP 5,935,990. Similarly, all of the other Kimura reissue application claims are directed to subject matter which has been claimed by Kimura from a date earlier than the Kimura USP 5,908,858 issue date. Accordingly, all of the Kimura reissue application claims do not fall within the prohibition of 35 USC 135(b).

Respectfully submitted,



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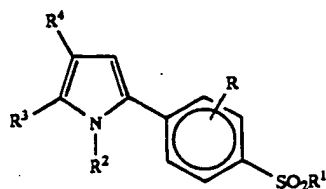
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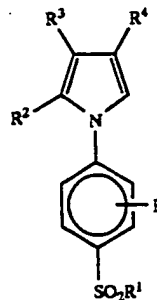


ATTACHMENT

13. (Third Amendment) [The compound of claim 1,] A compound of formula (I) or (II):



(I)



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wherein:

- R represents a hydrogen atom[, a halogen atom or an alkyl group having from 1 to 4 carbon atoms];
- R<sup>1</sup> represents a methyl group[, or an amino group [or an acetylamino group];
- R<sup>2</sup> represents an unsubstituted phenyl group or a phenyl group which is substituted by at least one substituent selected from the group consisting of a halogen atom; an alkoxy group having from 1 to 4 carbon atoms; an alkylthio group having from 1 to 4 carbon atoms; an unsubstituted alkyl group having from 1 to 4 carbon atoms; an alkyl group having from 1 to 4 carbon atoms which is substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group

having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms; [a mercapto group; an alkanoyl group having from 1 to 4 carbon atoms;] a [haloalkyl] haloalkoxy group having from 1 to 4 carbon atoms; and an alkylenedioxy group having from 1 to 4 carbon atoms;

R<sup>3</sup> represents a hydrogen atom, a halogen atom, an unsubstituted alkyl group having from 1 to 4 carbon atoms or a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms;

R<sup>4</sup> represents  
a hydrogen atom;

an unsubstituted alkyl group having from 1 to 4 carbon atoms;

a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having from 1 to [6] 4 carbon atoms and an alkylthio group having from 1 to [6] 4

carbon atoms;  
a cycloalkyl group having from 3 to 6 carbon atoms;  
an aryl group which has from 6 to 10 ring carbon atoms  
and which is unsubstituted or is substituted  
by at least one substituent selected from the  
group consisting of a halogen atom; an alkoxy  
group having from 1 to 4 carbon atoms; an  
alkylthio group having 1 to 4 carbon atoms;  
an unsubstituted alkyl group having from 1 to  
[6] 4 carbon atoms; an alkyl group having  
from 1 to [6] 4 carbon atoms and substituted  
by at least one substituent selected from the  
group consisting of a hydroxy group, a  
halogen atom, an alkoxy group having 1 to 4  
carbon atoms and an alkylthio group having 1  
to 4 carbon atoms; and a cycloalkoxy group  
having 3 to [8] 7 carbon atoms; and an  
aralkyl group having from 1 to 4 carbon atoms  
in the alkyl part and containing at least one  
said aryl group.

14. (Third Amendment) The compound of claim [1] 13, wherein:  
R represents a hydrogen atom[, a fluorine atom,  
a chlorine atom or a methyl group];  
R<sup>1</sup> represents an amino group [or an acetylamino  
group];



R<sup>2</sup> represents an unsubstituted phenyl group or a phenyl group which is substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms, an alkylthio group having from 1 to 4 carbon atoms, an alkyl group having from 1 to 4 carbon atoms, a haloalkyl group having from 1 to 4 carbon atoms, [a mercapto group, an alkanoylthio group having from 1 to 4 carbon atoms,] a haloalkoxy group having from 1 to 4 carbon atoms and an alkylenedioxy group having from 1 to 4 carbon atoms;

R<sup>3</sup> represents a hydrogen atom, a halogen atom, an alkyl group having from 1 to 4 carbon atoms or a haloalkyl group having from 1 to 4 carbon atoms;

R<sup>4</sup> represents a hydrogen atom; an unsubstituted alkyl group having from 1 to 4 carbon atoms; a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom and alkoxy group having from 1 to [6] 4 carbon atoms; a cylcoalkyl group having from 3 to 6 carbon atoms, an aryl group which has

from 6 to 10 ring carbon atoms and which is unsubstituted or is substituted by at [lest] least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having from 1 to [6] 4 carbon atoms, an alkyl group having from 1 to [6] 4 carbon atoms and which is unsubstituted or substituted by at least one halogen atom, and a cycloalkyloxy group having from 3 to [8] 7 carbon atoms; and an aralkyl group having from 1 to 4 carbon atoms in the alkyl part and containing at least one said aryl group.

15. (Third Amendment) The compound of claim [1] 13, wherein:

R represents a hydrogen atom;

R<sup>1</sup> represents an amino group [or an acetamino group];

R<sup>2</sup> represents an unsubstituted phenyl group or a phenyl group which is substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms, an alkylthio group having from 1 to 4 carbon atoms, an alkyl group having from 1 to 4 carbon atoms, a haloalkyl group having from 1 to 4 carbon

atoms, [a mercapto group, an alkanoylthio group having from 1 to 4 carbon atoms,] a haloalkoxy group having from 1 to 4 carbon atoms and an alkylenedioxy group having from 1 to 4 carbon atoms;

R<sup>3</sup> represents a hydrogen atom, a halogen atom, an alkyl group having from 1 to 4 carbon atoms or a haloalkyl group having from 1 to 4 carbon atoms;

R<sup>4</sup> represents

a hydrogen atom;

an unsubstituted alkyl group having from 1 to 4 carbon atoms;

a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom and an alkoxy group having from 1 to 6 carbon atoms;

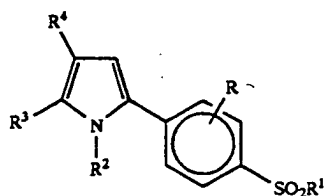
a cycloalkyl group having from 3 to 6 carbon atoms;

an aryl group which has from 6 to 10 ring carbon atoms and which is unsubstituted or is substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having from 1 to [6] 4 carbon atoms, an alkyl group having from 1 to [6] 4 carbon atoms and which is

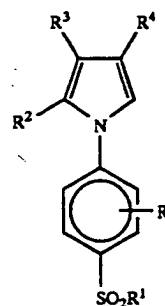
unsubstituted or substituted by at least one  
halogen atom, and a cycloalkyloxy group  
having from 3 to [8] 7 carbon atoms; and  
an aralkyl group having from 1 to 4 carbon atoms in the  
alkyl part and containing at least one said  
aryl group.

28. (Third Amendment) [The method of claim 27, wherein]

A method of treating or relieving pain or inflammation in a mammal suffering therefrom comprising administering to a mammal in need thereof an effective anti-inflammatory amount or effective analgesic amount of a compound selected from the group consisting of the compound of formula (I), the compound of formula (II), and a pharmaceutically acceptable salt of said compounds wherein:



(I)



(II)

R represents a hydrogen atom[, a halogen atom or an alkyl group having from 1 to 4 carbon atoms];

R<sup>1</sup> represents a methyl group[, ] or an amino group [or an acetylamino group];

R<sup>2</sup> represents  
an unsubstituted phenyl group or;  
a phenyl group which is substituted by at least one  
substituent selected from the group  
consisting of a halogen atom; an alkoxy group

having from 1 to 4 carbon atoms; an alkylthio group having from 1 to 4 carbon atoms; an unsubstituted alkyl group having from 1 to 4 carbon atoms; an alkyl group having from 1 to 4 carbon atoms and which is substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms; [a mercapto group; an alkanoylthio group having from 1 to 4 carbon atoms;] a haloalkoxy group having from 1 to 4 carbon atoms; and an alkylenedioxy group having from 1 to 4 carbon atoms;

R<sup>3</sup> represents a hydrogen atom, a halogen atom, an unsubstituted alkyl group having from 1 to 4 carbon atoms or a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms;

R<sup>4</sup> represents

a hydrogen atom;

an unsubstituted alkyl group having from 1 to 4 carbon

atoms;

a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having from 1 to [6] 4 carbon atoms and an alkylthio group having from 1 to [6] 4 carbon atoms;

a cycloalkyl group having from 3 to 6 carbon atoms;

an aryl group which has from 6 to 10 ring carbon atoms

and which is unsubstituted or is substituted by at least one substituent selected from the group consisting of a halogen atom; an alkoxy group having from 1 to 4 carbon atoms; an alkylthio group having from 1 to 4 carbon atoms; an unsubstituted alkyl group having from 1 to [3] 4 carbon atoms; an alkyl group having from 1 to [3] 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having from 1 to [6] 4 carbon atoms and an alkylthio group having from 1 to [6] 4 carbon atoms; and a cycloalkyloxy group having from 3 to [8] 7 carbon atoms; and

an aralkyl group having from 1 to 4 carbon atoms in the alkyl part and containing at least one said aryl group.

29. (Third Amendment) The method of claim [27] 28, wherein:

R represents a hydrogen atom[, a fluorine atom, a chlorine atom or a methyl group];

R<sup>1</sup> represents an amino group [or an acetyl amino group];

R<sup>2</sup> represents an unsubstituted phenyl group or a phenyl group which is substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms, an alkylthio group having from 1 to 4 carbon atoms, an unsubstituted alkyl group having from 1 to 4 carbon atoms, a haloalkyl group having from 1 to 4 carbon atoms, [a mercapto group, an alkanoylthio group having from 1 to 4 carbon atoms,] a haloalkoxy group having from 1 to 4 carbon atoms and an [alkenedioxy] alkylenedioxy group having from 1 to 4 carbon atoms;

R<sup>3</sup> represents a hydrogen atom, a halogen atom, an alkyl group having from 1 to 4 carbon



atoms or a haloalkyl group having from 1 to 4 carbon atoms;

R<sup>4</sup> represents

a hydrogen atom;

an unsubstituted alkyl group having from 1 to 4 carbon atoms;

a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom and an alkoxy group having from 1 to [6] 4 carbon atoms;

a cycloalkyl group having from 3 to 6 carbon atoms;

an aryl group which has from 6 to 10 ring carbon atoms

and which is unsubstituted or is substituted by at least one substituent selected from the

group consisting of a hydroxy group; a

halogen atom; an alkoxy group having from 1

to [6] 4 carbon atoms; an alkyl group having

from 1 to [6] 4 carbon atoms and which is

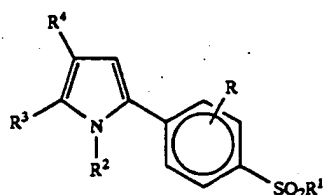
unsubstituted or substituted by at least one

halogen atom; and a cycloalkyl group having

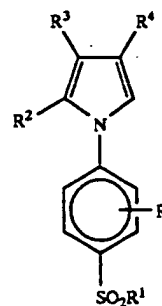
from 3 to [8] 7 carbon atoms; and

an aralkyl group having from 1 to 4 carbon atoms in the alkyl part and containing at least one said aryl group.

40. (Third Amendment) [The method of claim 39,] A method of selectively inhibiting the activity of COX-2 in a mammal comprising administering to said mammal a pharmaceutically effective amount of a compound selected from the group consisting of the compound of formula (I), the compound of formula (II) and a pharmaceutically acceptable salt of said compounds wherein:



(I)



(II)

- 
- R represents a hydrogen atom[, a halogen atom or an alkyl group having from 1 to 4 carbon atoms];
- R<sup>1</sup> represents a methyl group[, ] or an amino group [or an acetylamino group];
- R<sup>2</sup> represents an unsubstituted phenyl group or a phenyl group which is substituted by at least one substituent selected from the group consisting of a halogen atom; an alkoxy group having from 1 to 4 carbon atoms; an alkylthio group having from 1 to 4 carbon atoms; an unsubstituted alkyl group having from 1 to 4

carbon atoms; an alkyl group having from 1 to 4 carbon atoms and which is substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms; [a mercapto group; an alkanoylthio group having from 1 to 4 carbon atoms;] a haloalkoxy group having from 1 to 4 carbon atoms; and an alkylenedioxy group having from 1 to 4 carbon atoms;

R<sup>3</sup> represents a hydrogen atom, a halogen atom, an unsubstituted alkyl group having from 1 to 4 carbon atoms or a substituted alkyl group having from 1 to 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a halogen atom, an alkoxy group having from 1 to 4 carbon atoms and an alkylthio group having from 1 to 4 carbon atoms;

R<sup>4</sup> represents

a hydrogen atom;

an unsubstituted alkyl group having from 1 to 4 carbon atoms;

a substituted alkyl group having from 1 to 4 carbon

atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having from 1 to [6] 4 carbon atoms and an alkylthio group having from 1 to [6] 4 carbon atoms;

a cycloalkyl group having from 3 to 6 carbon atoms;

an aryl group which has from 6 to 10 ring carbon atoms and which is unsubstituted or is substituted by at least one substituent selected from the group consisting of a halogen atom; an alkoxy group having from 1 to 4 carbon atoms; an alkylthio group having from 1 to 4 carbon atoms; an unsubstituted alkyl group having from 1 to [6] 4 carbon atoms; an alkyl group having from 1 to [6] 4 carbon atoms and substituted by at least one substituent selected from the group consisting of a hydroxy group, a halogen atom, an alkoxy group having from 1 to [6] 4 carbon atoms and an alkylthio group having from 1 to [6] 4 carbon atoms; and a cycloalkyloxy group having from 3 to [8] 7 carbon atoms; and

an aralkyl group having from 1 to 4 carbon atoms in the alkyl part and containing at least one said aryl group.